"Open Platform Concepts and Vehicle Infrastructure Integration (VII)" A Roundtable Discussion

Questions for Discussion

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Please review these discussion questions in advance of the dialogue. To the extent practical, please be prepared to engage in the roundtable by responding to these questions.

Objectives:

- Advance DOT's efforts to foster dialogue and exchange of ideas with regard to technology options, policies and procedures that will impact the deployment of VII applications.

- Promote understanding regarding the variety of options and continuum of openness along which various platforms have been developed.

- Promote understanding regarding the policy and financial considerations that developers have factored into the development of open platforms for complex systems.

Part I Discussion Questions:

To what extent is an open platform possible for delivering VII applications?

- Clarify the definition and meaning of an open platform.

- Four-five years ago VII was originally conceived based on prescribed requirements, architecture, and technology. Concerns about limits on innovation, particularly as it exists in the private sector, sparked discussion on an open platform model. **Discuss the VII concept as it was initially conceived. How can we assess the VII concept against open platform principles in order to arrive at an appropriate and feasible level of openness?**

- What does it mean to have safety critical applications on an open platform, for both V2V and V2I communications?

- Are there attributes or elements of open platforms that conflict with safety applications? This is especially important vis-à-vis the technical considerations for VII applications, which include:
  - Access to the system
  - Authentication

- o Interoperability and coexistence of applications
- o Privacy (of data and personal information)
- o Latency

- Are there good examples of applications built on open platforms that can help inform the development of a VII system? If so, what makes these examples helpful?

- Describe any transferrable best practices or practices to avoid in terms of technology development and deployment, governance and oversight, and financing and funding.

Part II Discussion Questions:
- DOT seeks a VII platform that is open enough so people can use proprietary or open software, new devices, etc. in order to speed up the process of innovation and allow different applications to harmoniously coexist. Opening up the interfaces requires defining standards and boundaries for openness. **Is it more effective and efficient to have a single open platform for all VII applications, or a suite of platforms that serve different applications?**

- If the objective is to advance an open platform, does "Who makes the rules and how are rules enforced?" matter, and does this depend on the degree of openness that is appropriate and feasible for VII?

- How can the public sector incentivize private sector investment through public finance and policy considerations, regulatory incentives, and other means?

- How can VII/DSRC functionality remain viable over 10-20 years or more? How can VII evolve within an 18-month electronic product cycle, 3-5 year automobile cycle, and 20-50 year roadway cycle?